AMENDMENTS TO THE CLAIMS

1-27. (Cancelled)

28. (Currently Amended) An LCD device including an EM type touch panel comprising:

first and second substrates facing each other;

a thin film transistor array on the first substrate;

a plurality of pixel electrodes electrically connected to respective thin film transistors of the thin film transistor array;

an EM sensor including first and second coil arrays formed of a transparent electrode on the second substrate, wherein each of the first and second coil arrays include a plurality of coils and each of the plurality of coils has first and second open ends and wherein the first coil array is perpendicular to the second coil array;

a light-shielding layer and a color filter layer ~~on the EM sensor~~ corresponding to the pixel electrodes are disposed on the EM sensor, wherein the light-shielding layer and the color filter layer are not coplanar with the EM sensor;

an overcoat layer on the color filter layer and the light-shielding layer;

a common electrode on the overcoat layer;

a liquid crystal layer between the first and second substrates; and

a backlight unit below the first substrate.

29. (Previously Presented) The LCD device of claim 28, further comprising a controller below the backlight unit for controlling the EM sensor.

30. (Previously Presented) The LCD device of claim 28, wherein the EM sensor includes:

a first transparent insulating layer over the first coil array including the second substrate, wherein the first coil is formed on the second substrate; and

a second transparent insulating layer over the first transparent insulating layer, including the second coil array, wherein the second coil array is formed on the first transparent insulating layer.

31. (Original) The LCD device of claim 30, wherein the first and second transparent insulating layers are formed of organic layers.

32-33. (Cancelled)

34. (Previously Presented) The LCD device of claim 28, wherein the first open end is electrically connected to a grounding voltage.

35. (Original) The LCD device of claim 34, wherein the second open end is electrically connected to a MUX.

36. (Original) The LCD device of claim 35 wherein one of the plurality of coils is selected, and then a voltage from the MUX is applied to the selected coil.

37. (Cancelled)

38. (Original) The LCD device of claim 28, wherein the overcoat layer is formed of an organic layer.

39. (Cancelled)

40. (Currently Amended) An LCD device including an EM type touch panel comprising:

first and second substrates facing each other;

a plurality of pixel regions on the first substrate, each pixel region including a thin film transistor, pixel electrode, and a common electrode;

a light-shielding layer and a color filter layer on the second substrate corresponding to the plurality of pixel regions;

an EM sensor including first and second coil arrays formed of a transparent electrode is disposed on the light-shielding layer and the color filter layer, wherein the first coil array is perpendicular to the second coil array and the light-shielding layer and the color filter layer are not coplanar with the EM sensor;

an overcoat layer on the EM sensor, wherein each of the first and second coil arrays include a plurality of coils, and each of the plurality of coils has first and second open ends;

a liquid crystal layer between the first and second substrates; and

a backlight unit below the first substrate.

41. (Previously Presented) The LCD device of claim 40, further a controller below the backlight unit for controlling the EM sensor.

42 (Previously Presented) The LCD device of claim 40, wherein the EM sensor includes:

a first transparent insulating layer over the light-shielding layer and the color filter layer including the first coil array, wherein the first coil array is formed on the light-shielding layer and the color filter; and

a second transparent insulating layer over the first transparent insulating layer including the second coil array, wherein the second coil array is formed on the first transparent insulating layer.

43. (Original) The LCD device of claim 42, wherein the first and second transparent insulating layers are formed of organic layers.

44-45. (Cancelled)

46. (Previously Presented) The LCD device of claim 40, wherein the first open end is electrically connected to a grounding voltage.

47. (Original) The LCD device of claim 46, wherein the second open end is electrically connected to a MUX.

48. (Original) The LCD device of claim 47, wherein one of the plurality of coils is selected, and then a voltage from the MUX is applied to the selected coil.

49 (Cancelled)

50. (Currently Amended) An LCD device including an EM type touch panel comprising:

first and second substrates facing each other;

a thin film transistor array on the first substrate;

a plurality of pixel electrodes electrically connected to respective thin film transistors of the thin film transistor array;

an insulating layer [[on]] over the thin film transistor array and the pixel electrodes;

an EM sensor including first and second coil arrays formed of a transparent electrode is directly on the insulating layer, wherein each of the first and second coil arrays include a plurality of coils, and each of the plurality of coils has first and second open ends and wherein the first coil array is perpendicular to the second coil array;

a light-shielding layer and a color filter layer on the second substrates, wherein the light-shielding layer and the color filter layer are not coplanar with the EM sensor;

a liquid crystal layer between the first and second substrates; and

a backlight unit below the first substrate.

51. (Original) The LCD device of claim 50, further comprising a common electrode on any one of the first and second substrates and a controller for controlling the EM sensor below the backlight unit.

52. (Original) The LCD device of claim 50, wherein the insulating layer is formed of an organic layer.

53. (Cancelled)

54. (Previously Presented) The LCD device of claim 50, wherein the EM sensor includes:

a first transparent insulating layer over the insulating layer including the first coil array, wherein the first coil array is formed on the insulating layer; and

a second transparent insulating layer over the first transparent insulating layer including the second coil array, wherein the second coil array is formed on the first transparent insulating layer.

55. (Cancelled)

56. (Previously Presented) The LCD device of claim 50, wherein the first open end is electrically connected to a grounding voltage.

57. (Original) The LCD device of claim 56, wherein the second open end is electrically connected to a MUX.

58. (Original) The LCD device of claim 57, wherein one of the coils is selected, and then a voltage from the MUX is applied to the selected coil.

59. (Canceled)